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# **METAL ROOFING**

# **TECHNICAL PROBLEMS**

After years of exposure to the elements, sheet-steel roofs (galvanised, pre-lacquered with aluminium or zinc) will start to suffer from corrosion problems, and they'll begin to take in water. You need a solution that will address both problems.

# **TRADITIONAL SOLUTION**

• Installing a traditional, multi-layer type sealant on the roof. However, this will not solve the corrosion problems and will increase the weight on the structure, possibly to levels that it can no longer support.

• Application of a layer of polyurethane foam sealant with an anti-UV skin.

### THE DRAWBACK:

The foam can crack if the support moves, and it doesn't provide an effective solution to the issue of corrosion. It requires effective corrosion protection to first be applied to the roof.

### SOUPLETHANE TECHNIQUE

Once the substrate is adequately prepared, SOUPLETHANE provides excellent corrosion protection with extremely good adhesion to the substrate. It follows any deformation in the substrate without becoming damaged (thermal expansion or mechanical deformations). If offers ideal protection from chemical attacks (corrosive smoke) and good resistance to UV light.

It provides an unbroken seal by bridging the joints between each sheet of metal. It will also reinforce the seal on the nuts and bolts used to assembly the structure. The additional weight on the roof is negligible (1 to 1.3kg/m<sup>2</sup>), so no structural reinforcement is required.

You can also provide thermal insulation by first installing insulation panels onto the sheet metal and then covering them with SOUPLETHANE.

SOUPLETHANE seals come with a ten-year guarantee, but the actual lifetime is closer to 30 years.

# **TESTS AND CERTIFICATIONS**

- Adherence to steel > 100 Bars
- Corrosion: 2 000 hours in salt-mist without any traces of corrosion (SNCF laboratory test).
- Product lifetime: ageing test: 30 years
- Resistance: UV rays and chemicals (Bridges and Roads Laboratory, SGN Laboratory, Rhône Poulenc).

Waterproofing



# **SPECIFICATION**

- prepare the substrate:
- mechanical grinding or sandblasting.
- if there is significant corrosion, treat with a rust remover.

### • apply SOUPLETHANE

- apply SOUPLETHANE using a roller or a spraying equipment, at a rate of 1 to 1.3kg/m<sup>2</sup> (depending on the condition of the substrate).
- nut and bolt treatment: fully cover with SOUPLETHANE
- bridge the roofing joints with a woven glass fabric.
- bridge any holes with a woven glass fabric.

### **QUALITY CONTROL**

- Substrate preparation: ensure that the substrate is dry. If not, dry the surface with a propane torch. Check that any exposed metal at the joints is not corroded. If it is, passivate the steel beforehand before applying SOUPLETHANE.

Apply SOUPLETHANE: ensure that there is an even layer across all the substrates, with no visible defects (blisters, holes, etc.), that any film has properly polymerised and adhered, and that any upstands or special points have been properly treated.

### **WORK REFERENCES**

- Dassault Boulogne
- R.I. V.P.
  C. O.F. Chemicals
- CES Colette, Sartrouville.